

# **Country Report of Japan**

## **Approach to the Peaceful Use of Nuclear Energy and FNCA Activities**

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Your Excellencies, distinguished delegates, ladies and gentlemen, on behalf of Japan, I have the honor to introduce the current situation of Japanese nuclear activities to the eighth Ministerial-Level Meeting of the FNCA, the Forum for Nuclear Cooperation in Asia.

The research, development and utilization of nuclear energy in Japan has been promoted in accordance with the Framework for Nuclear Energy Policy decided by the Atomic Energy Commission in 2005, strictly limiting it to peaceful purpose and on the premise of ensuring safety and security.

As for nuclear power generation, Japan has 55 commercial nuclear power plants in operation with the combined capacity of 50 GWe or so, of which annual output accounts for about one-third of national electricity generation. These plants are contributing to the improvement of degree of energy self-sufficiency in Japan and the fulfillment of international obligation to reduce carbon-dioxide emission prescribed in the Kyoto Protocol.

The Framework puts it as a goal to make the share of nuclear power generation 40% of the total electricity generation in 20-30 years. To this end, Japan is currently pursuing not only the efficient utilization of existing plants through the increase in plant availability but also the construction of LWRs in parallel with the development of advanced LWRs that will be used for the replacement of existing plants when they will retire in 20-30 years.

On July 16, a powerful earthquake hit the Chuetsu Region in Niigata Prefecture and the Kashiwazaki-Kariwa Nuclear Power Plant, located very near to the epicenter, experienced a seismic input significantly beyond that used as the design basis. All the operating nuclear reactors had been shut down safely as designed however and there was no effect on the surrounding environment, though some of the plant's non-safety related constructions, systems, and components were largely affected. Detailed inspections by the authorities are ongoing and the government asked every nuclear power plant operators to re-evaluate the seismic safety of their plants, taking into consideration of this particular experience as soon as practicable.

As we believe that it is our duty to share the lessons learned from this experience internationally, Japan accepted an IAEA review mission to the plant and plans to hold several international experts workshops in this month and in the coming year for this purpose.

In May this year, former Prime Minister of Japan Shinzo Abe presented to the world an initiative to address global warming entitled "Invitation to Cool Earth 50." He

proposed under this initiative a goal of cutting global emission of greenhouse effect gases by 50% from the current level by the year 2050. Obviously in order to attain this goal, it will be required for the global community to pursue a significantly expanded use of nuclear energy, as it is nearly carbon free and one of the cost-effective options available today for reducing greenhouse effect gas emissions in the industrial sector of energy production.

In this context, Japan will do its best to support those countries which are considering the introduction of nuclear energy not only for the development of a national infrastructure for nuclear power, focusing on human resources as well as systems for assuring safety, security and nonproliferation, but also for the assurance of finance for the construction of nuclear power plants, inducing the international financial sector to provide loan for the construction of nuclear power plants that requires a large scale financial investment.

The promotion of the utilization of radiation is another important policy area, because radiation technology is used by many countries to advance development in diverse fields such as diagnosis and treatment of diseases, improvement of agriculture through bio fertilizer and mutation breeding, pollution monitoring and radiation processing of natural polymer. Under the FNCA framework, eleven projects in eight fields are currently in progress. The results of these projects encourage us to continue our contribution to further progress in these projects and starting of new projects. It is also a pleasure for Japan to recognize that a significant progress has been made in the Asian Nuclear Training and Education Program (ANTEP), whose basic concept was agreed in the previous Ministerial-level Meeting.

We think it worthwhile that the first Panel meeting of Experts to study about the cooperation in the area of nuclear power in Asia has reached an agreement on the possible future cooperation among participating countries after discussing the charge on the panel focusing on the human resource development for sound development of nuclear power utilization. Japan hopes that the FNCA will continue this kind of activities so that member countries can timely develop infrastructure needed to introduce nuclear power when they decide to do so, including human resource, nuclear non-proliferation regime and safety and security framework.

With that, I conclude my report, promising that Japan will continue to pursuing cooperation with countries in the region in the spirit of partnership for the advancement of nuclear science and technology and the effective utilization of such advancement for social and economic development in each country.